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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/523,581	01/27/2005	Ying-Hao Li	JCLA9035	5838

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EXAMINER	
WEBB, GREGORY E	

ART UNIT	PAPER NUMBER
1751	

MAIL DATE	DELIVERY MODE
09/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/523,581	LI ET AL.	
	Examiner	Art Unit	
	Gregory E. Webb	1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 June 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

9/3/07

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 6/27/07 have been fully considered but they are not persuasive.

2. The applicant argues that the two different acids are added for two different intended uses. The applicant further argues that although the prior art teaches these two acids, they are taught for a different intended use.

3. It should be noted that intended use recitations and other types of functional language cannot be entirely disregarded. However, in composition claims, intended use must result in structural difference between the claimed invention and the prior art in order to patentable distinguish the claimed invention from the prior art (see MPEP 2111.02). Furthermore, applicant may not rely upon the preamble to distinguish his claimed composition from that of the prior art, where the preamble does not constitute a limitation of a claim when it states a purpose or intended use (see Loctite Corp. V. Ultraseal Ltd., 781 F.2d 861, 868, 228 USPQ 90, 94 (Fed. Cir. 1985)).

4. It should also be noted that one skilled in the art of chemistry would try obvious combinations of acids and concentrations such that compatibility with the electronic substrate would be achieved. As the prior art is directly involved with electronic cleaning one skilled in the art would predictably attempt various concentrations to find a balance between fast cleaning and damage to the substrate. As the applicant has not provided data demonstrating unexpected results such routine actions as varying the concentration would be considered routine.

5. Concerning newly added claims 10-13, again the applicant's broadly claimed concentrations of compounds have not been shown to be unexpected. These ranges are not only taught by the prior art references such as Peters '289 teaching 30-90% solvent but would have been predictably obtained thought routine experimentation.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-7, and 9-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Peters et al (US 6,828,289).

3. Peters teaches aqueous acidic compositions for removing photoresists. Peters teaches the composition as having 30-90% organic solvent, 0.5%-40% water and up to 15% corrosion inhibitor (see col. 3, lines 20-30).

4. Peters teaches various organic solvents suitable for their invention including dimethylacetamide (DMAC; see col. 3, lines 55-68).

5. In claim 7, Peters teaches various suitable corrosion inhibitors including malonic acid (first compound), malic acid (first compound), fumaric acid (second compound), and benzotriazole (suppressor).

6. Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Honda et al (US 6,268,323).

7. Honda teaches non-corrosive photoresist stripping compositions containing 5-50% solvent, 10-90% alkanolamine, 0.1-10% carboxylic acid and 1-40% water.

8. Honda teaches various solvent suitable for their invention including N-methyl-2-pyrrolidinone, DMSO, dimethylacetamide, and ethylene glycol.

9. Honda teaches various carboxylic acids including oxalic acid (first compound), malonic acid (first compound), tartaric acid (first compound), lactic acid (second compound), citric acid (second compound), glycolic acid (second compound), and lactic acid (second compound).

10. Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Small et al (US 6,248,704).

11. Small teaches composition for removing residues from semiconductors containing 20-50% water, 20-80% organic amide, 0-50% sulfoxide, and additives.

12. Small teaches the preferred solvent to be dimethylacetamide (see col. 6, lines 37-44). Small teaches various pH adjusting agents/chelating agents including malic acid, malonic acid, oxalic acid, succinic acid, tartaric acid and citric acid in amounts ranging from 1-25% of the composition.

13. Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Honda et al (US 6,103,680).

14. Honda teaches composition for cleaning semiconductors containing 1-40% carboxylic acid/chelating agents including citric acid, tartaric acid, lactic acid, and oxalic acid (see col. 4, lines 10-30).

15. Honda further teaches the use of various solvents including the following:

> Suitable water-miscible solvents used in the cleaning composition of the invention are illustrated by N-methyl-2-pyrrolidinone (**NMP**), N-hydroxyethyl-2-pyrrolidinone (HEP), **1,3-dimethyl-2-imidazolidinone** (DMI), **dimethylsulfoxide** (**DMSO**), **N,N-dimethylacetamide** (DMAC), diacetone alcohol, (DAAL), **ethylene glycol** (EG), propylene glycol (PG) or combinations thereof. **NMP** and **DMSO** solvents are especially effective in terms of photoresist stripping power and are preferred in the present invention. (*emphasis added*)

16. Claims 1-7, and 9-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Tanabe et al (US 5,795,702)

17. Tanabe teaches compositions containing 2-30% hydroxylamide, 2-35% water, 2-20% amine, 35-80% solvent and 2-20% corrosion inhibitor.

18. Tanabe teaches various suitable corrosion inhibitors including oxalic acid, malonic acid, fumaric acid, lactic acid, malic acid, and citric acid (see col. 4, lines 42-61).

19. Tanabe teaches various suitable solvents including the dimethyl formamide, dimethylacetamide, imidazolidinones, glycol ethers, and N-methyl2-pyrrolidone (see cols. 3-4).

20. Tanabe further teaches the inclusion of triazole compounds including benzotriazole (see cols. 4-5).

21. Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Cioletti (US 5,266,121).

22. Cioletti teaches methods of cleaning photographic equipment. Cioletti teaches the composition contains organic acids sufficient to lower the pH to between 1 and 5. Cioletti teaches specific organic acids including oxalic acid (first compound) and citric acid (second compound; see claim 18).

23. Cioletti teaches suitable water soluble solvents including ethylene glycol butyl ether (see col. 3, lines 9-13).

24. Cioletti further teaches suitable surfactants which includes nonylphenol ethoxylates as per instant claim 8 (see col. 3, lines 3-8).

25. Although Cioletti does not specifically teach the amount of acid, Cioletti does teach amounts sufficient to lower the pH between 1 and 5 would inherently meet the applicant's instant requirements for weight percent ranges.

26. Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Guillou (US 5,998,349).

27. Guillou teaches compositions containing citric acid, oxalic acid, and succinic acid in amounts to provide a pH of less than 0.5 (see claim 8 and 10). Guillou further teaches the amount of acid to be between 1-20% by weight of the composition (see col. 5, lines 1-6).

28. Guillou further teaches the inclusion of various nonionic surfactants including nonyl phenol ethoxylates (see col. 5, lines 12-24).

Conclusion

29. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory E. Webb whose telephone number is 571-272-1325. The examiner can normally be reached on 9:00-17:30 (m-f).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglass McGinty can be reached on (571)272-1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Gregory E. Webb
Primary Examiner
Art Unit 1751

gew